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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,021	03/10/2004	Alex Horng	HORN3175/EM	2126

23364 7590 04/20/2005

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EXAMINER
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NGUYEN, TRAN N

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/796,021

Applicant(s)

HORNG ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Horng et al (US 6,448,675)** (hereafter Horng'675) in view of **Applicant Admitted Prior-Art Figure 1 (hereafter AAPA Fig. 1)**.

**Horng'675** discloses a prestressing structure for rotationally balancing a motor, comprising:

a motor stator (2) having an axial tube (13) at its center portion having an end,  
a magnetically conductive member (17) formed at the end of the axial tube;  
a motor rotor (3) consisting of a shaft seat (unnumbered, figs 2-4) and a rotary shaft (31) mounted thereto at its center portion,  
the rotary shaft extending through the axial tube when assembled; and  
a balancing magnet (33) mounted to the shaft the motor rotor and including at least one lower surface attracting the upper surface of the magnetically conductive member (17).

**Horng'675** substantially discloses the claimed invention, except for the limitations of *the axial tube having a top end and the prestressing structure with the a balancing magnet and the*

*magnetically conductive member being mounted at the top end area of the axial tube*, as in the claimed language.

AAPA, however, teaches a prestressing structure with magnetically balancing element mounted at the top end region of the axial tube. Those skilled in the art would understand that Horng'675 prestressing structure with the balancing magnet and the magnetically conducting member being mounted to the bottom end of the axial tube instead of at the top end of the axial tube is a reverse arrangement of the claimed invention. In other words, the claimed invention reverses the position of the magnetic conducting member and the balancing magnet to the axial top end instead of bottom end.

Horng'675 also discloses that the position of the magnetic conductive member (17) and the balancing magnet (33) can be interchanged in position, i.e., the magnet can be mounted to the stator part while the magnetic conductive member can be mounted to the rotor part without changing the performance of the prestressing structure for the purpose of balancing the rotation of the motor in order to reducing vibration. By the same token, the locations of the prestressing structure and are located by either end of the axial tube for performing the same function of balancing the rotation thereof.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the motor by reversing the location of the magnetically conducting member and the balancing magnet to the position at the top end of the axial tube, as taught by AAPA Fig 1. Doing so would enable the prestressing structure effectively perform the same balancing the rotation thereof. Furthermore, doing so would simply require necessary mechanical skills of a worker in the art to reverse the position of the magnetic conducting member and the balancing magnet to the axial top end instead of bottom end. This rearranging part of an invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 70) since one of ordinary skill in the art would have the necessary mechanical skill to make simple reversals of positions of mechanical

Art Unit: 2834

parts without an express teaching in a reference (*In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)).

Art Unit: 2834

3. **Claims 2-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Horng'675** and **AAPA Fig 1**, as applied in the rejection against the base claim, and further in view of **Horng (US 6,400,054)** (hereafter Horng'054)

The combination of **Horng'675** and **AAPA Fig 1** refs substantially discloses the claimed invention, except for the added limitations of the following:

- (a) axial tube having an integrally formed flange thereon at the top end to contribute the magnetically conductive member, as in claim 2, and
- (b) various shapes of the balancing magnets and/or the magnetically conducting member, as recited in claims 3-6.

*Regarding the limitations as in subsection (a) herein*, Horng'054 discloses an axial tube having a flange (21) integrally formed thereto wherein the upper surface of the flange facing oppositely to the shaft seat of the rotor (fig 4). The flange would prevent disengagement of a stator element that is mounted around the axial tube. When modifying the Horng'675 with the flange, as taught by Horng'054, not only the flange serving as a securing abutment for the stator but also provide a planar surface that broadens the magnetic attracting between the balancing magnet and the magnetic conducting member.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the motor by prestressing structure of the motor by configuring the axial tube with a flange integrally formed thereto, as taught by Horng'054. Doing so would provide a mechanical means to abut the stator element as well as broaden the magnetic attracting surface between the magnetic conducting member and the balancing magnet to enhance the effective performance of the prestressing structure.

*Regarding the limitations as in subsection (a) herein*, Horng'675 generally discloses the essential structure of the magnetically conducting member and the balancing magnet to provide balance for the rotation of the motor. Those skilled in the art would understand that it would

Art Unit: 2834

have been obvious to an artisan to basically apply the Horng'675 teaching and modifying the shapes of the magnetic conducting member and/or the balancing magnet as mechanically preferred for suitable fit as well as suitable size and shape of the motor without departing from the Horng'675 essential disclosed elements and their functional performance.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the motor by variously modify either the magnetically conducting member and/or the balancing magnet with different shapes, as recited in claims 3-6, without departing from the essential teaching of Horng'675. Doing so would provide the magnetically conducting member and/or the balancing magnet with a configuration that would be mechanically preferred for suitable fit, and require only necessary mechanical skills in the art because a change in size or shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955) (emphasis added).

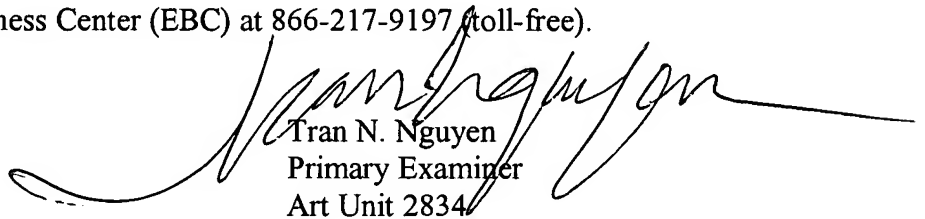
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tran N. Nguyen  
Primary Examiner  
Art Unit 2834